NAVAL FACILITIES ENGINEERING COMMAND, EFACHES

Installation Restoration Program Paves the Way for Base Reuse at NAS Patuxent River

INNOVATION • RESPONSIVENESS • PARTNERING • REUSE

The Naval Air Station (NAS) Patuxent River is located at the mouth of the Patuxent River (65 miles southeast of the Pentagon, 90 air miles from the fleet in Norfolk). The station overlooks the Chesapeake Bay and occupies approximately 7,950 acres on Cedar Point.

Since its inception in 1942, the NAS Patuxent River has been one of the main centers for testing naval aircraft and equipment for the U.S. Navy. The NAS Patuxent River operates 140 aircraft, representing all Navy types and models (including 21 tenant aircraft). With the extensive and expanding testing activity on base, where can there possibly be room to construct a parking lot for airplane refueling trucks? At an Installation Restoration (IR) site of course!

Refueling Operations at Patuxent River: The installation approached the IR Program personnel and inquired about the possibility of reusing an existing IRP site for an aircraft fueling truck parking lot. The current refueling operation is centrally located on the installation and is approximately two (2) miles from the fuel farm. The relocation would meet base long-term operational needs by reusing and centralizing an area for parking aircraft fueling trucks near petroleum storage tanks adjacent to the runway / taxiways. In addition, centralization will allow the base to redevelop approximately 23 acres, which are currently used to park the fueling trucks.

Site 6/6A Description and History: Site 6 / 6A, the Bohneyard, is one of 46 IR sites located at NAS Patuxent River (Figure 1). The Bohneyard is located in the northwestern part of the NAS, at the intersection of Bohne Road and the taxiway. The Bohneyard covers an area of approximately 6 acres. Past disposal activities at the Bohneyard have impacted various environmental media in the vicinity of the Bohneyard.

NAS Patuxent River Partnering Team Actions: In 1998, the NAS Patuxent River IR Partnering Team was established with the mission to streamline the IR process in order to clean up potentially contaminated sites quickly. The Partnering Team consists of members from Engineering Field Activity, Chesapeake (EFA, Ches), NAS Patuxent River, the U.S. Environmental Protection Agency (EPA), the Maryland Department of the Environment (MDE), CH2M HILL, IT Corporation, and Tetra Tech. The team was presented with the challenge of completing the investigation of potential contamination, designing an acceptable alternative, and awarding a construction contract in order to make the site available for base reuse within a short time frame.

A series of quick evaluations and onboard reviews were necessary to expedite the process. The team determined that separating the site into two operable units (OUs) would allow the process to be streamlined so that the construction schedule could be met and current exposure pathways that may pose an unacceptable risk to human health from contamination in the soil could be eliminated. OU-1 consists of contaminated soil (inorganic metals contamination). OU-2 comprises groundwater and downstream surface water and sediment, and is currently under investigation.

Figure 1. Current Aerial View of Site 6 and 6A, Bohneyard

The ecological screening assessment concluded that only very limited habitat would be present on the Bohneyard based on future use, and therefore, potentially supporting very few ecological receptors. Thus, ecological risks under the future land use scenario are negligible based on the lack of complete and significant exposure pathways at the Bohneyard.

An extensive evaluation of various alternatives for protecting human health was conducted based on the nine criteria outlined in the National Contingency Plan (NCP). In support of the base's reuse mission, the preferred alternative selected by the team involves constructing a concrete parking lot over about one-half of Site 6. A cover comprised of soil over gravel would be placed over the remaining area of Site 6. At Site 6A, an asphalt cover would be constructed to allow for storage / staging of equipment. Institutional controls would consist of access restrictions to prevent trespassing at the Bohneyard, land use controls to control site development and access to groundwater, and monitoring to assess whether contaminants are migrating to the environment. This alternative meets both goals; reuse of the facility and protection of human health.

The preferred alternative is displayed conceptually in Figure 2.

Schedule: In order to meet the base's schedule, the conceptual design was completed while the study and regulatory approvals were guided by the team through the EPA and MDE. Funding for the project also needed to be coordinated. The construction project will be paid for by using Defense Fuels, Defense Base Operating, and the Navy Environmental Restoration Account funds. Despite the tight schedules that had to be met, construction will begin in the fall of 1999. The Bohneyard will be ready for reuse by the spring of 2000.

Bottom Line: The restoration activities at the Bohneyard will provide more space at the NAS Patuxent River by reusing the site to create a parking lot for airplane refueling trucks, while at the same time controlling the potential risk to human health. The IR activity at the Bohneyard thus far is a success story made possible by various agencies / companies working together as one team toward a common goal.

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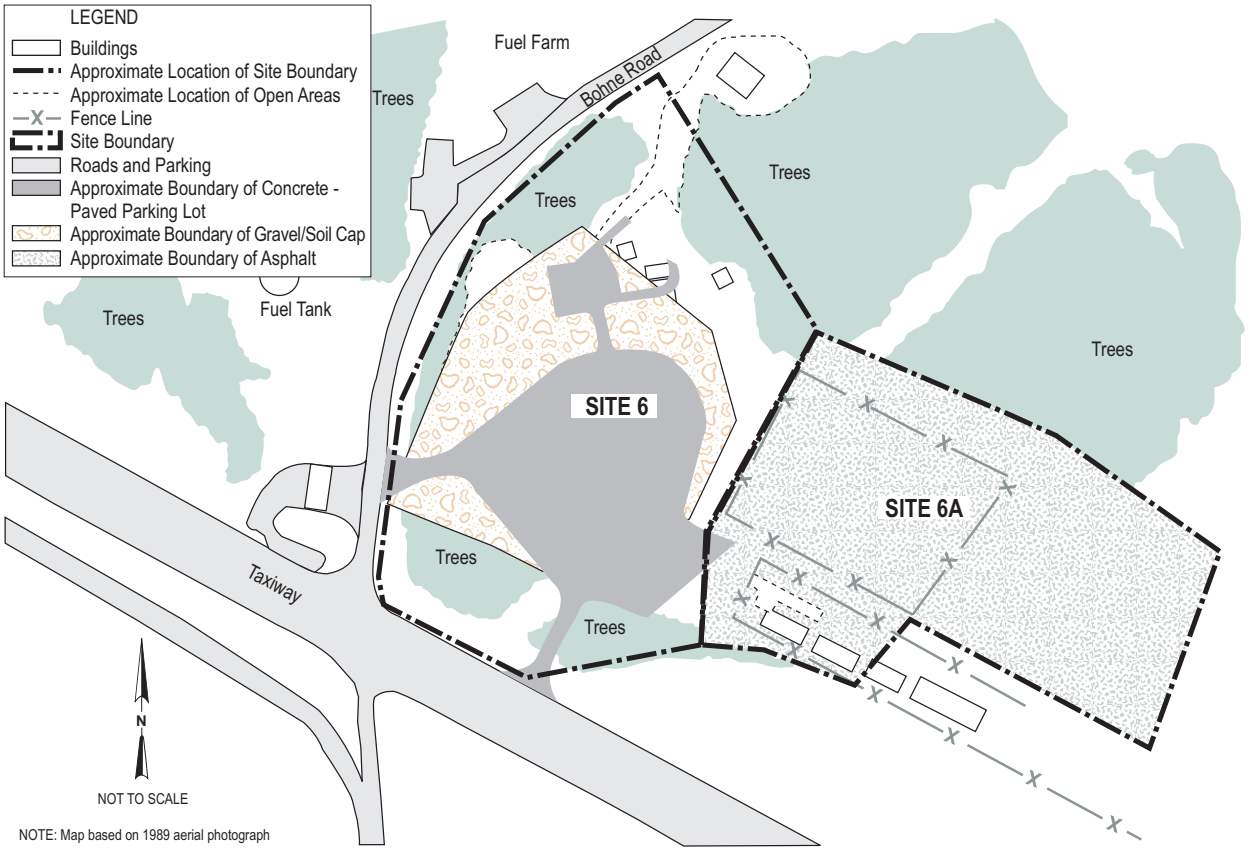

Figure 2. Detail of Preferred Alternative for Sites 6 and 6A.